

## ABSTRACT

Disclosed are TGF- $\alpha$  polypeptides, related polypeptides, fragments and mimetics thereof useful in stimulating stem cell or precursor cell proliferation, migration and differentiation. The methods of the invention are useful to treat tissue injury as well as expand stem cell populations in, or obtained from, gastrointestinal, musculoskeletal, urogenital, neurological and cardiovascular tissues. The methods include *ex vivo* and *in vivo* applications.